

DATE: December 17, 2004

TO: 3M Files

FROM: Sonny Zentner

SUBJECT: EPA Final Comments

Listed below are the final comments from EPA and the final responses to those comments from the Wisconsin DNR. EPA has indicated that a letter will be sent to the Wisconsin DNR mentioning that all of their concerns have been satisfied and this concludes their review.

1. The reference to compliance demonstration methods in section I.F.1.b(4) is not specific enough. The permit should cite the specific section of 40 CFR Subpart JJJJ which contains the compliance demonstration options.

DNR Response:

Under section I.F.(1)b.(4), specific compliance demonstration methods in 40 CFR Subpart JJJJ have been listed. Changes have been noted.

Before correction:

(4) **MAY ELECT:** a different method of compliance demonstration not listed above that is provided in **40 CFR Subpart JJJJ**

After correction:

(4) **MAY ELECT:** a different method of compliance demonstration not listed above that is provided in **40 CFR 63.3370 (a) through (p)**

2. Section I.J.b(2) needs to indicate the specific sections of Part III to be used for compliance demonstration.

DNR Response:

Addition references to compliance demonstration requirements have been added to condition I.J.b.(2). Changes have been noted.

Before correction:

(2) The monthly amount of VOC emissions shall be calculated according to I.F.1.b.(8), I.G.4.b.(1), I.G.4.b.(2), I.G.4.b.(3), I.H.3.b.(3), I.H.3.b.(4), I.I.2.b.(1), I.I.2.b.(2), **and conditions in Part III.K.1.** of this operation permit. [\[s. NR 407.09\(4\)\(a\)1., Wis. Adm. Code\]](#)

After correction:

(2) The monthly amount of VOC emissions shall be calculated according to I.F.1.b.(8), I.G.4.b.(1), I.G.4.b.(2), I.G.4.b.(3), I.H.3.b.(3), I.H.3.b.(4), I.I.2.b.(1), I.I.2.b.(2), **III.F.(1), III.G.(1), III.H.4.b.(1), III.H.4.b.(1) (2), III.I.1.b., III.J.1.b., III.K.1.b.(2)(a), III.K.1.b.(2)(b), III.K.1.b.(2)(c), III.K.1.b.(2)(d), and III.K.1.b.(2)(e).** [\[s. NR 407.09\(4\)\(a\)1., Wis. Adm. Code\]](#)

3. Part III.A of the permit states "The permittee shall follow permit revision procedures to have any new state or federal requirement be included in the operation permit." The permit should provide a citation to those procedures. (e.g. The operation permit will be revised in accordance with the appropriate procedures under NR 407.11, NR 407.12 or NR 407.13, as appropriate, if any new state or federal requirements are triggered.)

DNR Response:

References to the procedures for revising a permit have been included in the opening paragraph in Part III.A. Changes have been noted.

Before correction:

The permittee may modify or construct any of the following projects/facility changes as approved under air pollution control permit 04-SJZ-142 and adopted by this operation permit, during the term of the Environmental Cooperative Agreement and new source permit 04-SJZ-142, subject to all applicable conditions of Part III of this permit. All other projects shall be permitted according to NR 406, Wis. Adm. Code, construction permitting program. If the Environmental Cooperative Agreement expires or is revoked for any reason, the installation of any future project/facility changes under Part III.A. of this operation permit will be prohibited. All future projects shall then be permitted according to the traditional NR 406, Wis. Adm. Code, construction permitting program. Potential to emit emissions (after controls) from the following projects/facility changes listed below shall be limited to less than 100 tons per year for each of the following criteria pollutants: carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds.¹ See Part III.K.1. for requirements. The facility shall meet any new state or federal requirement that is triggered as a result of the installation of processes under Part III.A. **The permittee shall follow permit revision procedures to have any new state or federal requirement be included in the operation permit.**

After correction:

The permittee may modify or construct any of the following projects/facility changes as approved under air pollution control permit 04-SJZ-142 and adopted by this operation permit, during the term of the Environmental Cooperative Agreement and new source permit 04-SJZ-142, subject to all applicable conditions of Part III of this permit. All other projects shall be permitted according to NR 406, Wis. Adm. Code, construction permitting program. If the Environmental Cooperative Agreement expires or is revoked for any reason, the installation of any future project/facility changes under Part III.A. of this operation permit will be prohibited. All future projects shall then be permitted according to the traditional NR 406, Wis. Adm. Code, construction permitting program. Potential to emit emissions (after controls) from the following projects/facility changes listed below shall be limited to less than 100 tons per year for each of the following criteria pollutants: carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds.¹ See Part III.K.1. for requirements. The facility shall meet any new state or federal requirement that is triggered as a result of the installation of processes under Part III.A. **The operation permit shall be revised in accordance with procedures in s. NR 407.11, s. NR 407.12, or s. NR 407.13, of the Wis. Adm. Code, as appropriate, if any new state or federal requirements are triggered.**

4. It is our understanding from previous discussions that the authorized changes under the category of R&D/Pilot/Development Projects would be limited by the exemption to the requirement to obtain a construction permit in NR 406.04(1)(i) and (j), which is part of the approved State Implementation Plan. Part III.A of the permit only limits the scope of changes under this category to processes not listed under NR 405.02(22)(a)(1), Wis. Adm. Code, which is the list of stationary sources with a 100 ton per year major source threshold under NSR.

DNR Response:

3M does not operate a laboratory defined under NR 400.02(90), Wis. Adm. Code so s. NR 406.04(1)(j), Wis. Adm. Code is not applicable. Condition in Part III.A.(4) has been revised. Changes have been noted.

Before correction:

Project/Facility Change	Description
(4) R&D/Pilot/Development Projects	Modify OR install a process for manufacturing research, development, scale-up, OR prototype, which is NOT otherwise included in pre-approvals (1), (2), (3), or (5) of this permit that is not listed in s. NR 405.02(22)(a)1, Wis. Adm. Code

¹ Because potential to emit emissions (after controls) are limited to less than 100 tons per year for carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds, an environmental assessment is not required under section NR 150.03(8)(b)1, Wis. Adm. Code.

After correction:

Project/Facility Change	Description
(4) R&D/Pilot/Development Projects	Modify OR install a process for manufacturing research, development, scale-up, OR prototype, which is NOT otherwise included in pre-approvals (1), (2), (3), or (5) of this permit that is not listed in s. NR 405.02(22)(a)1, Wis. Adm. Code, and does not require a permit under ch. NR 405 or NR 408, or under s. NR 446.05, Wis. Adm. Code.

The following additional requirements have been added to Part III.B.5.(a). Changes have been noted.

Before correction:

(a) Initial Notification.

1. for R&D/Pilot/Development projects authorized under Part III.A(4) of this permit, the notification shall be sent to Wisconsin DNR within 10 days prior to implementation of the project/facility change, and shall include a description of how records will be maintained for that project for purposes of assuring continued compliance with the facility-wide emissions limit as well as any relevant limits. The notification shall also include an operating schedule, explanation of any calculations, emission factors, or other information which will enable the recordkeeping to be performed.

2. for all other projects authorized under Part III.A of this permit, the notification shall be sent to Wisconsin DNR within 3 days prior to implementation of the project/facility. Recordkeeping for these projects will be performed according to requirements of the relevant section of Part III.A.

After correction:

(a) Initial Notification.

1. for R&D/Pilot/Development projects authorized under Part III.A(4) of this permit, the notification shall be sent to Wisconsin DNR within 10 days prior to implementation of the project/facility change, and shall include a description of how records will be maintained for that project for purposes of assuring continued compliance with the facility-wide emissions limit as well as any relevant limits. The notification shall also include an operating schedule, explanation of any calculations, emission factors, or other information which will enable the recordkeeping to be performed.

2. the Wisconsin DNR shall approve or deny the notification requesting a research and test exemption under s. NR 406.04(1)(i), Wis. Adm. Code, for a R&D/Pilot/Development project in writing within 10 business days of being submitted. During this 10 day period, the Wisconsin DNR will decide if a public notice, an opportunity for public comment, and/or a public hearing of the notification requesting a research and test exemption are necessary.

3. for all other projects authorized under Part III.A of this permit, the notification shall be sent to Wisconsin DNR within 3 days prior to implementation of the project/facility. Recordkeeping for these projects will be performed according to requirements of the relevant section of Part III.A.

5. If the category of R&D/Pilot/Development Projects is not limited to those projects exempt from the requirement to obtain a construction permit under NR 405.04(1)(i), then the requirement in Part III.B.5(a)(1) does not provide adequate recordkeeping, monitoring and reporting requirements to ensure that the 249 ton per year limit on VOC and 100 ton per year limit on all other criteria pollutants is enforceable as a practical matter.

DNR Response:

Part III.B.5(a)(1) is only intended to list notification requirements, not recordkeeping and monitoring requirements. Please refer to conditions III.I.1.b., III.K.1.c.(1), and I.J.1.a.(1) for recordkeeping, monitoring and reporting

requirements and conditions associated with the 100 ton/yr limit for criteria pollutants and 249 ton/yr limit for VOC.

6. Part III.B.5(a)(3) requires the permittee to include in the initial notification of each change “how VOC emissions will be tracked against the facility cap in addition to requirements in Part I.J.1.” To make a limitation enforceable as a practical matter under New Source Review, the permit must include, in addition to the limitation itself, adequate conditions to ensure compliance with the emission limitation. This includes the emissions tracking requirements and the method that will be used to calculate emissions to show compliance. With respect to Title V, Section 504(c) of the Clean Air Act requires a Title V permit to “set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions.” If the permit fails to provide these requirements, then the permit has not adequately addressed the new or modified equipment and pre-approval into the Title V permit is not possible. 3M will be required to modify the permit in accordance with the appropriate provisions in NR 407.

DNR Response:

This comment is referring to condition in Part III.B.5(b)(3) and that the draft permit has been revised since the version that this comment originates from. Part III.B.5(b)(3) is only intended to list notification requirements. Please refer to I.J.1.b. and each process section of the permit for individual process limits, compliance demonstration conditions, and monitoring and recordkeeping requirements.

7. Part III.B.6 states that the applicable requirements for projects undertaken pursuant to Part III of the permit will be incorporated into the operation permit using the procedures outlined in NR 407.07(3). This rule citation relates to the public notice procedures for an operation permit when a construction permit is required. Since changes are being authorized without the need for a new construction permit, these provisions do not seem to address incorporation of requirements into the operation permit. We believe a citation to the operation permit modification procedures in NR 407.11, NR 407.12, and NR 407.13 is appropriate.

DNR Response:

The purpose of the condition in Part III.B.6. is to indicate that any applicable requirements for processes allowed to construct under Part III will be incorporated into the operation permit when the operation permit is due for renewal or through a permit revision, whichever is more appropriate. Section NR 407.07(3), Wis. Adm. Code does mention public notice procedures as well as procedures the DNR shall do when an application is received for an operation permit or a renewal of an operation permit. These changes listed in Part III.A. are being authorized under construction permit 04-SJZ-142. References to s. NR 407.11, s. NR 407.12, or s. NR 407.13, of the Wis. Adm. Code, outlining the procedures for doing a permit revision have been included in Part III.B.6.

Before correction:

6. Applicable requirements for projects undertaken per the construction permit under Part III will be incorporated into operation permit using the procedures outlined within s. NR 407.07(3), Wis. Adm. Code upon renewal of the operation permit or through permit revision, whichever is most appropriate.

After correction:

6. Applicable requirements for projects undertaken per the construction permit under Part III will be incorporated into the operation permit using the procedures outlined within s. NR 407.07(3), Wis. Adm. Code upon renewal of the operation permit or through permit revision **in accordance with procedures in s. NR 407.11, s. NR 407.12, or s. NR 407.13, Wis. Adm. Code**, whichever is most appropriate.

8. Part III.G.1 states that the requirements of section I of Part I of the permit will apply to all new or modified ceramic fiber making lines with the exception of the control efficiency stated in I.I.1.a.(2), “which shall be adjusted by the permittee as may be necessary to meet the formaldehyde emissions limit stated at I.I.1.a.(1).” This condition is not enforceable as a practical matter.

DNR Response:

Requirements in Part III.G. have been revised. Changes have been noted.

Before correction:

III. G. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Ceramic Fiber Making

1. The permittee shall meet all conditions at section I of Part I of this permit for each new or modified ceramic fiber maker. These requirements shall apply to the collection of all such lines, with exception of the requirement at I.I.1.a.(2) for control efficiency, which shall be adjusted by the permittee as may be necessary to meet the formaldehyde emissions limit stated at I.I.1.a.(1).

After correction:

III. G. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Ceramic Fiber Making

1. The permittee shall meet all conditions at section I of Part I of this permit for each new or modified ceramic fiber maker. These requirements shall apply to the collection of all such lines with the emission limitations from section I of Part I applying across the collection of lines as follows.
 - (a) I.I.1.a(1) Formaldehyde emissions from all ceramic fiber lines combined to be no more than 166 lb/mo, averaged over each 12 consecutive month period
 - (b) I.I.1.a(2) Formaldehyde emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6), and any existing ceramic fiber lines modified under authority of Part III.A of this permit, and any new ceramic fiber lines installed under authority of Part III.A of this permit, shall be controlled by at least 41%, on average, between all process lines [P15, P16, P19, P22, and any modified/new processes under Part III.A] while using the worst case raw material family of fibers.
 - (c) I.I.2.a(1)b. VOC emissions shall not exceed 13,500 pounds per month averaged over each 12 consecutive month period for all ceramic fiber makers, including any that might be added or modified under authority of Part III.A of this permit.
 - (d) I.I.2.a(1)c. During the use of worst case raw materials, VOC emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), P22 (CF6), and any existing ceramic fiber lines modified under authority of Part III.A of this permit, and any new ceramic fiber lines installed under authority of Part III.A of this permit, shall be controlled at a control efficiency of at least 80%, on average, between all process lines controlled.
9. Part III.H of the permit states that the permit serves as the requirement for advance written approval under 40 CFR 63.5 for each new or reconstructed affected source subject to 40 CFR 63 subpart N. This language is not consistent with the requirements of 40 CFR 63.5 and 40 CFR 63 subpart N. 40 CFR 63.345(b)(4) states that “the owner or operator of a new or reconstructed affected source that submits a notification in accordance with paragraphs (b)(1) through (3) of this section is not subject to approval by the Administrator. Construction or reconstruction is subject only to notification and can begin upon submission of complete notification.” The advance written approval is not applicable when the permittee submits the initial notification as required by Part III.H.1.b(6). Because meeting the initial notification requirements, not the pre-approval under the permit, alleviates the need for advance written approval, this language should be removed from the permit.

DNR Response:

The opening paragraph in Part III.H has been revised. Changes have been noted.

Before correction:

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08 or P14. The following requirements apply to each new or reconstructed chromium plating line. The requirement for advance written approval under 40 CFR 63.5 for each new or reconstructed affected source subject to 40 CFR 63 subpart N is met through the pre-approval of this permit. [40 CFR 63.5] *[NOTE: i.e., authority of the state to substitute for EPA for approval of new and reconstructed MACT sources]*

After correction:

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08 or P14. The following requirements apply to each new or reconstructed chromium plating line.

10. Part III.K.1.a(1) limits the criteria pollutant emissions for each process/facility change under Part III.A to 100 tons per year. This would seem to allow several 100 ton per year increases without permit review, and potentially allow the permittee to become a major source and continue to make modifications which would trigger the Prevention of Significant Deterioration program without applying for the appropriate permit.

DNR Response:

The limit in Part III.K.1.(a)1. has been revised. Changes have been noted.

Before correction:

(1) The emissions for each criteria pollutant shall be limited to less than 100 tons per year for each process/facility change under Part III.A.² [s. 285.65(7), Wis. Stats.]

After correction:

(1) The emissions for each criteria pollutant shall be limited to less than 100 tons per year for each process/facility change under Part III.A, except for R&D/Pilot/Development Projects for which the emissions of each criteria pollutant shall be limited to less than 100 tons per year for the sum of all such R&D/Pilot/Development Projects authorized under Part III.A.(4). The 100 tons per year limit on carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds, was established to avoid doing an environmental assessment under section NR 150.03(8)(b)1, Wis. Adm. Code and to ensure that the facility remains a minor source under PSD rules. [s. 285.65(7), Wis. Stats.]

² The 100 tons per year limit on carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds, was established to avoid doing an environmental assessment under section NR 150.03(8)(b)1, Wis. Adm. Code.